Inventions and Provisional Patenting

Process at Pacific
Any potentially patentable inventions created at Pacific with more than incidental use of University resources must be disclosed and assigned to Pacific, regardless of the source of funding which supported the work, and regardless of the inventor's association with the University. This is accomplished by filing an Invention Disclosure form with the Office of Sponsored Programs. This Disclosure serves as the first notice to the University.

Usually, one needs to file for a patent within 12 months of disclosing their invention through presentation or publication. Since the marketability assessment and identifying a suitable law firm that best suits the discipline of the patent takes time, and the inventor may want to publish the invention, we recommend that the inventor submit a provisional patent application. This should be done after the above-mentioned Disclosure has been submitted.

Marketability Assessment
Pacific will evaluate the market structure and potential of the technology to add needed value. This will be accomplished by a committee or an outside agency. Things that will be assessed include:

- Who are the players and what are their pricing strengths
- How the technology changes the industry structure the cost factors for the production needs
- The switching costs for the customer to use the technology
- General Information on Patenting

If the invention is potentially patentable and has market potential, we use outside counsel to draft and file patent applications while we manage this process. The law firm is typically chosen based on the academic or industry background of their lawyers. The patent attorney assigned to the case will work with you to develop the patent application.

Provisional Patent Information
The following documents can be used to file a provisional patent application: Please consult the instructions for the details on who the inventors are, filing fee and mailing address.

Cover sheet: [http://www.uspto.gov/forms/ProvisionalSB.pdf](http://www.uspto.gov/forms/ProvisionalSB.pdf)

Provisional application instructions: [http://www.uspto.gov/forms/sb0014.pdf](http://www.uspto.gov/forms/sb0014.pdf)

A provisional application for patent has pendency lasting 12 months from the date the provisional application is filed, and cannot be extended. Thus, please contact the Office Sponsored Programs along a copy of the submitted provisional patent application. Pacific will conduct the market assessment diligently to further pursue the patent application or release the rights back to the inventors so that they can pursue this on their own.

Prosecution (examination of a patent application by a patent office) can take many years and cost tens to hundreds of thousands of dollars. Often the inventor(s) are consulted during patent prosecution on
technical aspects prior to responding to a patent examiner. Pacific may choose to discontinue a patent application during prosecution. Reasons to do so include lack of commercial interest in the invention; significant prosecution expenses in the absence of a licensee; and a decline in the probability of obtaining an issued patent discovered during prosecution.

*The Patent*

A patent is a set of exclusive rights granted for a limited period of time in exchange for a disclosure of an invention. Patentable inventions must be new, useful and non-obvious. Not all inventions can be patented by Pacific.

A patent is intended to publicly disclose the best mode of practicing an invention and, in particular, to point out the features that distinguish the invention from prior art. The patent includes drawings, if appropriate; and a specification that is typically broken into several distinct sections, including: the field of the invention, the background, a brief description of the drawings, a disclosure of the invention, a description of the invention, an explanation of the industrial applicability; and at least one claim.

*What Information and Description Is Necessary to Support a Patent Application?*

The field of the invention briefly describes the general field of the invention. A sentence or two is sufficient to aid the Patent Office in assigning the patent application to an Examiner and in classifying the resulting patent.

The background section describes the work done in the past and what has prompted the inventor to pursue this invention. This information is referred to as prior art; inventors have an absolute duty to disclose all relevant prior art. The background section typically develops the progression of work and sets forth the shortcomings of the prior art. It is therefore important for the inventor to include all the prior art and to include a description of the shortcomings and differences between each of the prior art references and the invention in this section. Typical sources of prior art include journal articles, published conference proceedings, issued patents, and other printed materials.

The drawings are provided to aid in understanding the invention. Where drawings do not aid understanding or are impractical, they are not included; but, nearly all inventions will have a drawing of some sort. Graphs and tables may also be included in this section.

The brief description of the drawings merely identifies the view shown in each figure.

The disclosure of the invention sets forth in broad terms what the inventor considers to be the invention and what advantages are gained by the invention. Since it must be written broadly, it typically does not include all the intricate details of the invention's operation. In fact, in most cases, it merely paraphrases the broadest claim.

The summary of the invention sets forth the theory on which the invention rests and the intricate details of at least one way (and sometimes several ways) the invention can be implemented. This description must be detailed enough for someone who is skilled in the art to reconstruct the invention and must include a description of the best way, in the inventor's view, the invention can be implemented. Each
implementation is called an embodiment and the best one is the preferred embodiment of the invention.

The industrial applicability section describes the applications in which industry will likely use the invention.

The claims circumscribe the legal bounds of the invention and are generally written using specialized terms. The claims describe the essential elements of an invention, first as broadly as possible and subsequently, more narrowly. It is generally easier to obtain a patent with narrow claims but, if too narrow, others can invent around the patented invention. In order to determine whether or not a product comes within the scope of a patent, one compares the product with each element of the claim; if the product is described by all the elements of the claim, then the product will come within the scope of that claim. For instance, a claim of "a vehicle with two or more wheels" covers bicycles, tricycles, cars, motorcycles etc., but not unicycles.

Patent prosecution is essentially a debate with the Patent Office about the breadth or narrowness of the claims, i.e., the scope of the invention.

Patentability
Licensable inventions may or may not be patentable. To obtain a U.S. patent for an invention, the invention must be:

- novel,
- useful, and
- non-obvious to one skilled in the art.

These criteria are examined in light of "the prior art." One can do a prior art search before disclosing an invention or before filing a patent application. (Prior art search information.)

Novel
To be considered novel, an invention must be the inventor’s original work. In addition, the inventor must file a patent application within one year of:

- publication (i.e., any unrestricted written description of the invention) anywhere in the world;
- public use in the U.S.; or
- an offer for sale in the U.S.

While the United States grants this one year "grace period" to file after first public disclosure, most foreign countries have no grace period. In these countries, a patent will not be granted if the invention was known publicly or disclosed in a publication even one day before the patent application filing date. In patent law, the word "publication" is interpreted much more broadly than when used in the typical research community (i.e., in a journal); if you have a question about whether or not a written or oral disclosure of any kind is a publication, please contact OTL.
Useful
An invention will be considered useful if it has some qualitative benefit, i.e., the patent application must specify a demonstrable utility for the invention.

Non-obviousness
A patentable invention must be "non-obvious" to someone of "ordinary skill in the art." This imaginary person "of ordinary skill in the art" does not necessarily include recognized experts in the field; rather it is a hypothetical reference to someone knowledgeable in the field who can understand the invention and has access to the relevant prior art. Because of the abstract quality of this requirement, it is sometimes difficult to predict with certainty whether the patent examiner will find the invention non-obvious.

"Non-obviousness" describes the concept of "unexpected results." An invention can be "non-obvious" if it is a combination of old elements in a new way to produce a new result. Similarly, an invention can be considered "non-obvious" if others have tried to achieve the invention and failed, or if others have been "teaching away from" the invention. Some situations will require affidavits from experts in the field stating the invention is not obvious to one skilled in the art.

Who are inventors
Not all authors of a publication need to be inventors.

An inventor is a person who conceives of an original and non-obvious idea which can be described clearly -- the invention.

The patent application claims determine who is and who is not an inventor. The claims define the invention from a legal viewpoint, and therefore, should be used as guides in determining inventorship.

A person who contributed a basic idea that resulted in the development of the invention as it is claimed in the patent application is considered an inventor. This may or may not include people who actually made a physical embodiment of the invention; however, an inventor must have contributed an essential element which developed into one of the embodiments as well.

A person who contributed only labor and/or the supervision of routine techniques, but who did not contribute to the idea - the concept of one of the embodiments of the claimed invention - is not considered an inventor.

For example, a routine translation of someone else's idea into physical reality by a technician does not make the technician an inventor.

The following is an interview with John J. Doll former Commissioner for Patents at the USPTO

http://www.youtube.com/watch?v=w1Wmkxp5yg4&feature=player_embedded